

## Run Ilu Milestones

ID	WBS	Name	MS Class	In Charge	Milestone WBS Dictionary	2003				2004				2005				2006				2007			
						Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
62	1.3.1.1.6	Design Review (Milestone)	C	R. Pasquinelli	Technical review: slip stacking beam studies and the design of the beam-loading compensation system, prior to funding the major purchases.				◆ 9/22																
66	1.3.1.1.10	Start Slip Stacking Assembly (Milestone)	C	R. Pasquinelli	Progress evaluation: sufficient components delivered to start rack assembly						◆ 2/9														
69	1.3.1.1.13	Slip Stacking Operational (Milestone)	A	J. Spalding	Project completion: slip stacking operational, decision to proceed with second phase (purchase of additional RF power modules)									◆ 12/14											
86	1.3.1.2.1.4.3	New Target in Operation (Milestone)	A	J. Spalding	Project completion: targets fabricated with new alloy in operation						◆ 12/30														
112	1.3.1.2.2.4.2	Beam Sweeping Operational (Milestone)	A	J. Spalding	Project completion: beam sweeping system in operation						◆ 1/21														
119	1.3.1.3.2.2	MI BPM: Review (Milestone)	C	I. Kourbanis	Technical review: specifications and design for Main Injector BPMs prior to major purchases								◆ 8/4												
125	1.3.1.3.3.2	Review MI 2.5 MHz Acceleration (Milestone)	C	C. Bhat	Technical review: progress and plans for 2.5 MHz acceleration in the Main Injector			◆ 8/1																	
142	1.3.2.1.1.2.1	Decision on long lithium lens (Milestone)	B	S. Werkema	Scope decision: long Li Lens (held as a backup consideration for the high gradient design). Decision to proceed will depend on progress with the high gradient lens prototype.						◆ 3/17														
153	1.3.2.1.2.1.5	Prototype Lens 1: Completed (Milestone)	C	P. Huh	Progress evaluation: completion of testing for the high gradient prototype lithium lens						◆ 3/17														
205	1.3.2.1.4	New Lens Operational (Milestone)	A	J. Spalding	Project completion: high gradient lithium lens in operation										◆ 4/11										
312	1.3.2.2.10	Initial AP2&DB Improvements Complete (Milestone)	C	K. Gollwitzer	Progress evaluation: identification and status of AP2 & Debuncher acceptance upgardes planned for FY05 summer shutdown								◆ 8/12												
313	1.3.2.2.11	Intermediate AP2&DB Improvements Complete (Milestone)	C	K. Gollwitzer	Progress evaluation: identification and status of AP2 & Debuncher acceptance upgardes planned for FY04 summer shutdown										◆ 8/10										
314	1.3.2.2.12	Final AP2&DB Improvements Complete (Milestone)	A	J. Spalding	Project completion: AP2 & Debuncher acceptance upgrade													◆ 12/4							
328	1.3.3.3.1.1.5	Review System Design: stacktail momentum	C	P. Derwent	Technical review: design and simulation of the stacktail momentum cooling system, prior to major purchases. At this review a decision will be made on whether to include an interim option of reconfiguring the present system						◆ 1/5														
333	1.3.3.3.1.2.4	Stacktail Reconfigured (option) (Milestone)	C	P. Derwent	Progress evaluation: completion of interim stacktail reconfiguration (optional)								◆ 8/10												
350	1.3.3.3.1.9	Stacktail Momentum Operational (Milestone)	A	J. Spalding	Project completion: stacktail momentum cooling system operational										◆ 11/17										
354	1.3.3.3.2.1.2	Review System Design: stacktail betatron (Milestone)	B	P. Derwent	Scope Decision and Technical review: decision of whether betatron cooling upgrade is necessary, and if so, review of the design prior to major purchases				◆ 11/28																
371	1.3.3.3.2.8	Stacktail Betatron Operational (Milestone)	A	J. Spalding	Project completion: stacktail betatron cooling system operational										◆ 11/17										
374	1.3.3.4.2	Commissioning Parameters Defined (Milestone)	C	S. Nagaitsev	Technical review: performance parameters defined for Recycler commissioning			◆ 10/1																	
376	1.3.3.4.4	Commissioning Plan Evaluation (Milestone)	B	S. Nagaitsev	Scope review: updated commissioning plan and draft resource-loaded schedule for the Recycler. Possible re-evaluation of the project schedule.				◆ 11/14																
377	1.3.3.4.5	RR Commissioned for Electron Cooling (Milestone)	A	J. Spalding	Project [partial] completion: Recycler commissioned to the performance level needed for electron cooling								◆ 7/2												
390	1.3.3.4.8.1	FY03 plan includes vacuum work in FY03 shutdown (Milestone)	C	S. Nagaitsev	Progress evaluation: confirmation that the vacuum work is completed in the FY03 shutdown			◆ 10/1																	
395	1.3.3.4.9.1.1	FY03 handover is installation in FY03 shutdown (Milestone)	C	S. Nagaitsev	Progress evaluation: confirmation that the Main Injector dampers are installed in the FY03 shutdown and that only commissioning is left to complete			◆ 10/1																	
409	1.3.3.5.1.11	Demonstrate beam properties at Wide Band Lab (Milestone)	B	S. Nagaitsev	Scope review: demonstration that the electron beam in the test setup at Wideband Lab meets the specifications for electron cooling. Decision to move the system to the Recycler or re-evaluation of the project schedule.						◆ 3/19														
411	1.3.3.5.2.1	Pelletron extension parts received (Milestone)	C	J. Leibfritz/S. Nagaitsev	Progress evaluation: additional stage for the Pelletron delivered					◆ 1/1															
494	1.3.3.5.6.1	Pelletron Installed at MI-31 (Milestone)	C	S. Nagaitsev	Progress evaluation: Pelletron relocated to MI-31 service building at the Recycler								◆ 8/11												
533	1.3.3.5.12	Electron Cooling Operational (Milestone)	A	J. Spalding	Project completion: electron cooling operational at the Recycler									◆ 1/25											
561	1.3.3.6.7	Rapid Transfers Operational (Milestone)	A	J. Spalding	Project completion: rapid transfer scheme between the Accumulator and Recycler										◆ 5/5										
581	1.3.4.3.1.5	Review TEL R&D (Milestone)	C	V. Shiltsev	Progress evaluation: summary of studies and performance of the first electron lens						◆ 3/23														
582	1.3.4.3.1.6	Decision on second TEL (Milestone)	B	V. Shiltsev	Scope review: decision on whether to proceed and build a second electron lens								◆ 12/15												
589	1.3.4.3.1.11	TEL System Operational (Milestone)	A	J. Spalding	Project completion: electron lens system for beam-beam compensation operational															◆ 5/23					
593	1.3.4.3.2.3	Decision to proceed with wire station prototype (Milestone)	B	V. Shiltsev	Scope review: decision to proceed with wire station prototyping, based on modeling of beam-beam compensation			◆ 9/29																	
598	1.3.4.3.2.8	Decision on wire BBC (Milestone)	B	V. Shiltsev	Scope review: decision to proceed with production wire system for beam-beam compensation, based on prototyping									◆ 1/19											
603	1.3.4.3.2.13	Wire BBC Operational (Milestones)	A	J. Spalding	Project completion: wire system for beam-beam compensation operational															◆ 4/23					
624	1.3.4.4.3.11	Increased BB separation operational (milestone)	A	J. Spalding	Project completion: new helix with larger beam-beam separation operational														◆ 3/22						
627	1.3.4.4.4.2	Decision on high voltage separators (Milestone)	B	V. Shiltsev	Scope review: decision on whether to retrofit the existing separators to allow operation at higher voltage, based on R&D on high voltage electrode coatings							◆ 4/28													
635	1.3.4.4.5.3	Decision on separators/magnets (Milestone)	B	V. Shiltsev	Scope review: decision on creating additional space in the lattice and to build longer separators at the interaction regions			◆ 9/1																	
649	1.3.4.6.4.2	Tev BPM: Review (Milestone)	C	J. Steimel	Technical review: Tevatron BPM system specifications and design, prior to major purchases			◆ 10/1																	
656	1.3.4.6.5.3	Tev IPM Design Review, decision to proceed (Milestone)	C	A. Jansson	Technical evaluation and scope review: Tevatron IPM, decision to proceed, prior to major purchases			◆ 10/1																	
668	1.3.4.7.1	FY03 plan includes FY03 shutdown (Milestone)	C	B. Hanna	Progress evaluation: confirmation that FY03 vacuum upgrade was completed and evaluation of plans for FY04-5			◆ 10/17																	
674	1.3.4.8.1	Review Tevatron Alignment Plans (Milestone)	C	R. Stefanski	Review the alignment plans deveoped by the Tevatron Alignment Task Force			◆ 8/1																	
716	1.3.6.2.1	Review: Tevatron Upgrade Plan (Milestone)	B	J. Spalding	Scope review: evaluation of upgrade plans and options for the Tevatron beam-beam mitigation and instrumentation - Following the initial work of the Tevatron Task Force.			◆ 9/29																	
717	1.3.6.2.2	Review: RR and Electron Cooling Commissioning Plan (Milestone)	A	J. Spalding	Luminosity projection evaluation: review the resource-loaded schedule for completing the Recycler and electron cooling and any update to the luminosity projection.				◆ 12/16																
718	1.3.6.2.3	Review: Phase 2-4 Transition Plan (Milestone)	A	J. Spalding	Luminosity projection evaluation: review the plan for integrating the Recycler and electron cooling into operations and any update to the luminosity projection.					◆ 4/16															
719	1.3.6.2.4	Start Phase 2 (Milestone)	A	J. Spalding	Operating Phase: start of phase 2 (driven by slip stacking)								◆ 12/14												
720	1.3.6.2.5	Start Phase 3 (Milestone)	A	J. Spalding	Operating Phase: start of phase 3 (driven by Recycler and electron cooling)								◆ 2/22												
721	1.3.6.2.6	Start Phase 4 (Milestone)	A	J. Spalding	Operating Phase: start of phase 4 (driven by stacktail cooling upgrade)									◆ 11/17											
722	1.3.6.2.7	Start Phase 5 (Milestone)	A	J. Spalding	Operating Phase: start of phase 3 (driven by Tevatron helix upgrade and long-lead AP2 & Debuncher upgardes (if any))														◆ 5/23						
724	1.3.6.3.1	Start Phase 2 contingency (Milestone)	A	J. Spalding	Indicates 4 month contingency on phase 2 start									◆ 4/15											
725	1.3.6.3.2	Start Phase 3 contingency (Milestone)	A	J. Spalding	Indicates 6 month contingency on phase 3 start										◆ 8/25										
726	1.3.6.3.3	Start Phase 4 contingency (Milestone)	A	J. Spalding	Indicates 6 month contingency on phase 4 start (shutdown schedule reduces to 4 months)											◆ 4/6									
727	1.3.6.3.4	Start Phase 5 contingency (Milestone)	A	J. Spalding	Indicates 6 month contingency on phase 5 start (shutdown schedule reduces to 4 months)																◆ 9/24				